THE HISTORY OF INDIAN MAMMALOGY AND ORNITHOLOGY

BY

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PART II. BIRDS

(Continued from Vol. 50, p. 778)

One of the earliest accounts of Indian birds was published in 1713 as an appendix to Ray's 'Synopsis Avium et Piscum'. The author was Edward Buckley a surgeon at Fort St. George, Madras, who sent descriptions and drawings of twenty-two birds found in and about Fort St. George to James Petiver (1663-1718) an apothecary of Aldersgate, London, and a well-known botanist and entomologist. From those drawings Linnaeus described the Paradise Flycatcher Corvus paradisi and Gmelin the Indian Pied Wagtail Motacilla maderaspatensis. In 1738 Eleanyar Albin brought out his illustrated work entitled 'A Natural History of Birds' and this was followed the next year by a supplement. Then in 1743-51 George Edwards published 'A Natural History of Uncommon Birds' and a few years later in 1758-64 'Gleanings on Natural History'. Many of the birds figured in these four works were given scientific names by Linnaeus, Gmelin, Latham and others and included a number of Indian species brought from the East by merchant ships.

Reference has already been made in the previous section to the work of the earlier French travelling naturalists, and it only remains to add a few further remarks. In 1774 Louis XV of France fitted out an exploring expedition to visit China and other countries on the way, and Pierre Sonnerat was appointed naturalist. The ship reached India in the end of 1774 or early in 1775 and called first at Mahe on the Malabar coast and secondly at Pondicherry on the coast of Coromandel. At each of these places a short stay was made and Sonnerat collected some specimens, which after the return of the expedition to France he described in his book 'Voyage aux Indes Orientales' (1782). He did not however give scientific names to these birds; that was done

later by Scopoli, Gmelin and Latham.

On March 28th, 1834 Adolphe Delessert set out on his travels in the East and by August 10th had reached Pondicherry. From there he went further eastward returning some time later and went to Calcutta, where he remained from July to November 1837. In his account of his travels, 'Souveniers d'un Voyage dans L'Indes' (1843), he makes no mention of going to Bhutan although he brought home from there three birds; the Blackrumped Magpie, Pica bottanensis, Stripethroated Siva, Muscicapa variegata (=Siva strigula) and the Whitethroated Spinetailed Swift, Hirundapus nudipes. From Calcutta Delessert went to the Nilgiris, where he met Jerdon in 1839,

and showed him a new babbler which Jerdon described in his Catalogue as *Crateropus delesserti*. Delessert also obtained several other birds, which he thought were new, but all of them had already been described by Jerdon.

In 1752 John Gideon Loten was appointed Governor of Ceylon, an office he held for five years, and afterwards was Governor of Java till he retired in 1759 and settled in London. He was interested in natural history, and while in Ceylon he employed a Burgher named de Bevere to paint birds. These drawings he brought home and lent some to Thomas Pennant, who had them reproduced in 'Indian Zoology' (1769) and Forster's 'Indische Zoologie' (1781). He also allowed Peter Brown to figure fifteen in his 'New Illustrations of Zoologie' and gave Sydney Parkinson permission to make copies of his whole collection for Sloane and Banks. These drawings and descriptions by the different authors may be considered the beginnings of Ceylon ornithology.

Dr. John Latham commenced in 1781 his 'General Synopsis of Birds' in which he brought together the descriptions of all the known birds, but it was not till 1790 in his 'India Ornithologicus' that he gave scientific names to the birds. When this remarkable man was eightyone years of age, in 1821, he began publishing 'A General History of Birds' a work in eleven volumes which was not completed till 1828, and though it has been much criticised there is no doubt the work was of great value to ornithologists of the period. In the latter part of the eighteenth century taxidermy was still in its infancy and instead of making a collection of stuffed birds it was the custom in India to employ a native artist to make paintings of birds. Many collections of such paintings were made and some became famous because Latham saw them and described the birds in his works. Among these collections was that made by Lady Impey, the wife of the Chief Justice of Bengal in the time of Warren Hastings, and there was another, made by a later Chief Justice, Sir John Anstruther. The collection of Lord Mountmorris included both African and Indian birds, but by far the largest was the one made by Major-General Hardwick chiefly in the 'Upper Provinces of Hindustan'. Latham, however, did not have the opportunity of examining any of Dr. Buchanan's drawings which were referred to under the section on Mammals (Vol. 50, p. 766). Hardwick, in addition to employing a native artist to paint birds also had a shikari to shoot and preserve specimens. Once he made a trip, accompanied by a Mr. Hunter, to Sirinagar above Hardwar and it was on this occasion that he obtained the Whitecrested Laughing Thrush he described as Corvus leucolophus. Shortly after this excursion which took place in 1796, he persuaded Lieut. Counsel to collect birds for him at Almora. Among the specimens thus obtained were the Cheer Pheasant Phasianus wallichii, the Koklas Pheasant P. purcrasia and the Jays Garrulus gularis and vigorsii (=G. lanceolatus) and G. ornatus (=G. bispecularis). With the help of Dr. Wallich, who was in Nepal making a botanical collection, Hardwick received from the Hon. Edward Gardner the first examples of the blood pheasant, the female of which he originally considered was a separate species and described it under the name Phasianus gardneri.

When Hardwick went home on leave in 1802 he took with him all his drawings and note books and, on his return to India in 1806. he left his mammal and bird drawings in England but took with him his note books and drawings of insects, intending to work at them on the voyage. Unfortunately the ship he was on foundered when six days out from Plymouth and he lost everything. Five years later he was home again and this time handed over his bird drawings to Dr. Latham to use and, after he had finally retired and was living in London, he arranged with Dr. J. E. Gray to publish a folio work of plates entitled 'Illustrations of Indian Zoology' (1830-34). No letterpress was ever published and the plates were principally of birds, though there were also a number of mammals, fish and reptiles.

Before the first number of this book was issued John Gould the taxidermist in charge of the museum of the Zoological Society, acquired a small collection of bird skins from the Himalayas; the exact locality from which they came is a matter of dispute. Most of the birds were new and Mrs. Gould made drawings of them, which were exhibited when the birds were described by N. A. Vigors at meetings of the Zoological Society. Ultimately the drawings were published in a single folio volume with letterpress by John Gould. All the birds figured in this work were not from the collection Gould had received; one came from the Museum at York, another—the Maroon Oriole—was lent by the museum in Liverpool and came from Nepal, and two or three, including the Ibisbill, were lent by Dr. Struthers of Glasgow.

About the same time as Gould got his birds, Captain James Franklin of the 1st Bengal Cavalry—an authority on geology—undertook a journey through the Central Provinces to study the rocks of the Vindhyan hills. Before starting he arranged to collect birds for the Asiatic Society and by the time he had reached Benares had secured forty specimens; and when he finished his journey at Saugor he had obtained one hundred and sixty more as well as making paintings of all of them.

After Franklin had described the collection the Asiatic Society decided to present the specimens to the Zoological Society and accordingly the skins, paintings and Franklin's notes were sent home to that Society and exhibited at a meeting. The Asiatic Society had stipulated that the paintings and notes should be returned to them,

but whether they are still in existence is not known.

Captain W. H. Sykes, of the Bombay Army, had, for some years, been engaged in compiling a 'Statistical Account of the Dukhun' and at the same time made a collection of birds which he took home and presented to the Company's Museum in 1831. In the *Proceedings of the Zoological Society* for 1832 he published 'A Catalogue of Birds of the Raptorial and Incessorial orders (systematically arranged) observed in the Dukhun.'

The following year Lieut. S. R. Tickell, an officer of the 1st Native Infantry in civil employ on the S-W. Frontier of Bengal, sent to the Asiatic Society for publication 'A List of Birds collected in the jungles of Barabhum and Dhalbhum'. After serving for some time in Bihar, Tickell was transferred to Tenasserim where he made some important discoveries. While still in Bengal he paid a visit

to Darjeeling and did some collecting there but never published any paper. As already mentioned under the Mammals (Vol. 50, p. 766), his MSS account of Indian Mammals and Birds is in the library of the Zoological Society and contains good notes on the habits of birds in many localities in Bihar and Orissa, Darjeeling and Tenasserim.

Three years later a young Scotch doctor, who had been appointed to the Madras Establishment, arrived in India and in course of time was to become the authority on Indian Birds. This was T. C. Jerdon and after serving his short training in Madras he was sent to Ganjam and from there went to join his regiment at Tellicherry. A year or two later the regiment moved to Jalna in the Deccan and on reaching that station he sent the collection of birds he had made to Sir William Jardine in Scotland asking him to check his identification, but owing to the long sea voyage and the ravages of moths the skins had to be destroyed when they reached Scotland. Nevertheless Jerdon decided to publish the account of his collections and rely on his own identifications. This paper was his well-known 'Catalogue of the Birds of the Indian Peninsula' which appeared in the Madras Journal of Literature and Science between 1839-41 followed by two supplements in 1845-46 which brought the total recorded in his catalogue up to 420 species which, compared with the 236 in Sykes's list and Franklin's 156 gives an indication of how the knowledge of Indian birds was increasing. After completing his catalogue, Jerdon began on another work 'Illustrations of Indian Ornithology' with descriptive letterpress, which was completed in 1846.

As already mentioned, Gould was the first to make known birds from the Himalayas and from time to time he made additions to his original list, but it is to Brian Hodgson that we really owe our knowledge of the birds of that great chain of mountains. Hodgson first went to Nepal in 1820 and soon became interested in mammals and birds, but it was not till 1829 that he seriously took up ornithology and in that year sent to the Gleanings in Science the description of a new hornbill Buceros nepalensis. Thereafter he produced a steady stream of papers till he left Nepal in 1844. When he returned to live at Darjeeling in 1845 he still continued to take an interest in ornithology, but only published five papers before leaving India for good in 1858. Owing to restrictions imposed on Europeans in Nepal, Hodgson had to confine his observations to the great valley and to rely on his native collectors to obtain specimens outside the limits of the valley. These men he sent right up to the snow line and on one or two occasions into Tibet, but that was principally to get mammals. Where actually the collectors went we do not know since Hodgson mentions few localities beyond the valley of Nepal.

Hodgson started ornithology with few books and no one to help him, and indeed, he was very isolated at Katmandu. All the specimens he obtained himself or were brought in by his men were carefully measured, weighed and minute descriptions taken of each or at least the first four or five. Many of the notes he recorded on the habits of different birds are not always very reliable since they were often not his own but what his men told him. Hodgson's collection contained a wonderful series of some species, but unfortunately his collectors were never taught to make good skins and the labelling was at fault, usually a strip of native paper with a number on it and some notes in the vernacular. Besides employing several skinners he had at least one artist, who made careful sketches of all the soft parts of the specimens as well as at least one complete drawing of each species. Hodgson was the first to write on bird migration in India and his paper 'On the migration of the Natatores and Grallatores as observed at Katmandu' (Asiatic Researches, 1833) shows that he was a close observer. He was also the first to draw attention to the altitudinal distribution of species in his paper on the 'Physical Geography of the Himalaya' (Journal Asiatic Society of Bengal, XVIII, 1849), a paper which is often overlooked, though six years later F. Moore gave a summary of it in the Proceedings of the Zoological Society.

During the first Afghan war Captain T. Hutton made a small collection of birds in Southern Afghanistan and recorded it, with Blyth's assistance, in 'Rough Notes on the Zoology of Candahar and Neighbouring Districts' (Journal Asiatic Society of Bengal, 1845). Both Hutton and Blyth were, however, unaware that Dr. Griffith had also collected birds during the same campaign and that his travels had been over a much wider area, including Cabul and Kafiristan, and even as far west as Bamian. This collection was sent home to the Company's Museum in Leadenhall Street, but nothing was done with it until the catalogue of that Museum was published in 1854-58 where some of the specimens were listed. Whistler, however, recorded all Griffith's birds in his 'Materials for the Ornithology of Afghanistan' Journ., B.N.H.S., Vols. 44-45 (1944-45). Horsfield and Moore in the catalogue above referred to made several mistakes over Griffith's specimens, recording skins he obtained in Assam as coming from Afghanis-These Assam birds of Griffith, were obtained after he had left Drs. Wallich and McClelland when they had finished investigating the conditions under which the tea plant grew in the Khasia Hills. collection McClelland made in these hills was worked out by himself. He then sent his paper to Horsfield with the request that he should read it through and arrange for its publication in the Proceedings of the Zoological Society, where it appeared in 1840.

Two years previously Capt. Pemberton had been sent by the Government on a mission to Bhutan. He was accompanied by Dr. Griffith as medical officer and botanist, another officer and a taxidermist and a collection of nearly 500 bird skins belonging to 126 species were obtained. Most of the specimens were sent to India House, only a few going to the Asiatic Society. No paper was written on this collection but the most interesting birds were, however, recorded in Ludlow's

'Birds of Bhutan' (Ibis, 1937).

In 1849 Gould commenced another large folio work the 'Birds of Asia' but he died before it was completed and Dr. Bowdler Sharpe was responsible for the seventh volume which came out in 1883. The plates were very good and there is much of interest in the letterpress about the localities of some of the earlier specimens he described and as to who collected them. He mentions a Captain W. E. Boyes of the 6th Cavalry, who made a considerable collection in the Himalayas, United Provinces and Rajputana and kept careful notes. Boyes died in 1854 and his collection was sold by auction, the greater part of it was bought by Dr. Wilson and given to the Philadelphia Museum, but a good many skins were secured by Sir William Jardine and

H. E. Strickland. Gould gives further particulars about the birds obtained by Lord Gifford in Kashmir, where he went in 1846 with his younger brother then Lord Arthur Hay, who afterwards became the well-known ornithologist the Marquis of Tweedale. It has never been possible to discover whether other specimens than those mentioned by Gould were obtained by these two brothers, and certainly none of their note books are now in existence.

Edward Blyth came out to Calcutta in 1841 to take charge of the Asiatic Society's Museum which he built up in a few years to have the best collection of birds outside Europe or North America. He established systematic ornithology in India on a sound basis but had little opportunity for field work, though he was a good observer as can be seen by the 'List of Birds observed in the vicinity of Calcutta' (Ann. Mag. Nat. Hist., 1843) which he wrote a few years after his arrival.

In a later number of the same journal some of Blyth's identifica-tions were queried by H. E. Strickland who afterwards published in the Annals a translation of a little-known paper 'The Birds of Calcutta' by C. J. Sundeval a Swede, who had spent a few months in Calcutta in 1825. Soon Blyth was in correspondence with men interested in birds all over the Company's territories and at the monthly meetings of the Society was wont to discourse on the birds they sent him. Sometimes he read a paper reviewing a group or a family but as there was frequently a delay in publishing these papers he adopted the unfortunate custom of publishing and distributing them privately, which has led to confusion in nomenclature. In the course of time Blyth wrote a number of these revisions with the intention of publishing a book and in 1855 an advertisement appeared in the press to the effect that the first number of a serial work on ornithology by Blyth was to be published shortly by Messrs. Thacker, Spink & Co., but nothing further was heard of the proposed work. Blyth gave great assistance to Jerdon, who frequently refers to him in the supplement to his catalogue as well as in his book. He also was in correspondence with Kelaart when preparing his 'Prodromus Faunae Zeylaniae' which originally that ornithologist had arranged to write with E. L. Layard. For some unknown reason he dropped Layard and the birds in the book were given as a mere list. This was unfortunate as Layard was a very fine ornithologist, who spent a number of years in Ceylon, and wrote 'Notes on the Ornithology of Ceylon' (Ann. Mag. Nat. Hist., 1853-54). For sometime Blyth had been engaged in preparing a catalogue of birds in the Society's collection, but though it was completed in 1849 the volume did not appear till 1852 owing to the fact that Blyth kept adding one appendix after another. 'Catalogue of Birds in the Collection of the East India Company'. two volumes of which appeared in 1854 and 1858 was never completed as the museum was closed, shortly after the British Government took over the East India Company.

Jerdon and Blyth were great friends but the same cannot be said of Hodgson and Blyth. From letters and other sources it is evident that Hodgson resented Blyth's editing of the communications he sent for publication in the Society's journal and furthermore Blyth was always so very over-worked that he sometimes delayed or mislaid Hodgson's papers, which naturally caused annoyance.

Soon after the mutiny Jerdon went on sick leave to Darjeeling and then later was posted to Burma. On his way through Calcutta he saw the Viceroy, Lord Canning, and put before him a scheme for a series of manuals on the vertebrates of India. When he had only been a short time in Burma he was recalled and placed on special duty to write the manuals. The first to be published was the 'Mammals of India' and in 1862 the first volume of the birds came out followed

by the second volume in two parts in the following year.

Jerdon's 'Birds of India' was for years the standard work on that country. The area it dealt with was limited to India proper, that is from the Himalayas to Cape Comorin and from the Indus to the Teesta and Brahmaputra in the east. Though Assam, Burma and Ceylon were not included, Jerdon frequently refers to species found in these countries. As Hume and Blyth have pointed out Jerdon's descriptions were sometimes inadequate, but his notes on habits have made the work a classic amongst Indian bird books. After he had finished the second volume, Jerdon started on the volumes on reptiles and fish but he also found time to visit Kashmir more than once, as well as all the hill-stations in the Himalayas, the Khasia Hills and other parts of Assam and made many additions to the 1,008 different species of birds he had given in his book. Had he lived to complete the volumes on reptiles and fish doubtless he would have written an additional volume on the birds or brought out a second edition.

Dr. Leith Adams, whose service in India is given in the previous section, wrote two important papers, the one in the *Proc. Zool. Soc.*, 1858 deals with the habits of the birds he met with in India chiefly in the plains, while the other which came out in the same journal is an account of the birds he observed in Kashmir and Ladak. In this last paper he gives fuller particulars of the several new birds he discovered and Gould described including the Orange Bullfinch *Pyrrhula aurantiaca*, the Tibet Snowfinch *Montifrigilla adamsi* and the two forms

of the Kashmir Dipper Cinclus cashmeriensis and sordidus.